

Genomic DNA from *Anaplasma phagocytophilum*, Strain NCH-1

Catalog No. NR-51150

For research use only. Not for use in humans.

Contributor:

Jason A. Carlyon, Ph.D., Department of Microbiology and Immunology, Virginia Commonwealth University, Richmond, Virginia, USA

Manufacturer:

BEI Resources

Product Description:

Genomic DNA was extracted from a preparation of cell lysate and supernatant from human promyelocytic leukemia cells (HL-60; ATCC® CCL-240™) infected with *Anaplasma phagocytophilum* (*A. phagocytophilum*), strain NCH-1. *A. phagocytophilum*, strain NCH-1 was isolated in 1997 from the blood of a patient suffering from human granulocytic ehrlichiosis in Massachusetts, USA.¹ The complete genome of *A. phagocytophilum*, strain NCH-1 has been sequenced (GenBank: [LANT01000009](https://www.ncbi.nlm.nih.gov/nuccore/LANT01000009)).

A. phagocytophilum is an intracytoplasmic bacterium that is transmitted by *Ixodes persulcatus* complex ticks and infects bone marrow-derived mammalian cells. It is the causative agent of tick-borne fever of ruminants, equine granulocytic ehrlichiosis, and human granulocytic ehrlichiosis (HGE).^{2,3} *A. phagocytophilum* was formerly known as *Ehrlichia phagocytophila*, but was subsequently reassigned to the *Anaplasmataceae* family.³

NR-51150 has been qualified for PCR applications by amplification of approximately 1470 base pairs of the 16S ribosomal RNA gene.

Material Provided:

Each vial contains approximately 100 µL of bacterial genomic DNA in TE buffer (10 mM Tris-HCl, 1 mM EDTA). The bacterial genomic DNA is in a background of cellular nucleic acid. The vial should be centrifuged prior to opening.

Packaging/Storage:

NR-51150 was packaged aseptically in screw-capped plastic cryovials. The product is provided frozen on dry ice and should be stored at -20°C or colder immediately upon arrival. Freeze-thaw cycles should be minimized.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Genomic DNA from *Anaplasma phagocytophilum*, strain NCH-1, NR-51150."

Biosafety Level: 1

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. [Biosafety in Microbiological and Biomedical Laboratories \(BMBL\)](#), 6th ed. Washington, DC: U.S. Government Printing Office, 2020.

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References:

1. Telford, S. R., et al. "Perpetuation of the Agent of Human Granulocytic Ehrlichiosis in a Deer Tick-Rodent Cycle." *Proc. Natl. Acad. Sci. USA* 93 (1996): 6209-6214. PubMed: 8650245.
2. Dumler, J. S., et al. "Human Granulocytic Anaplasmosis and *Anaplasma phagocytophilum*." *Emerg. Infect. Dis.* 11 (2005): 1828-1834. PubMed: 16485466.
3. Dumler, J. S., et al. "Reorganization of Genera in the Families *Rickettsiaceae* and *Anaplasmataceae* in the Order *Rickettsiales*: Unification of Some Species of *Ehrlichia* with *Anaplasma*, *Cowdria* with *Ehrlichia* and *Ehrlichia* with *Neorickettsia*, Descriptions of Six New

Species Combinations and Designation of *Ehrlichia equi* and 'HGE agent' as Subjective Synonyms of *Ehrlichia phagocytophila*." Int. J. Syst. Evol. Microbiol. 51 (2001): 2145-2165. PubMed: 11760958.

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